MAWA EVENTS

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FAILURE MODES AND EFFECTS ANALYSIS (FMEA)

"Identify, Analyze, and Eliminate Failures Before They Happen."

Schedule

Venue (In-house)	Fees
At Your Organization Premises	Ask For The Quotation

Introduction

Failure Modes and Effects Analysis (FMEA) is one of the most powerful tools for identifying potential failures in products, processes, or systems before they occur. By systematically evaluating risks and prioritizing corrective actions, FMEA helps organizations prevent costly downtime, improve reliability, and enhance product and process quality.

This course provides participants with in-depth knowledge of FMEA methodology, including Design FMEA (DFMEA), Process FMEA (PFMEA), and their applications across industries. Through real-world examples and practical exercises, participants will learn how to identify potential failure modes, assess their effects, calculate risk priority numbers (RPN), and implement effective preventive measures.

Objectives

By the end of this course, participants will be able to:

- Understand the principles, purpose, and benefits of FMEA
- Differentiate between Design FMEA and Process FMEA
- Identify potential failure modes and their causes and effects
- Evaluate risks using severity, occurrence, and detection ratings
- Calculate and interpret Risk Priority Numbers (RPN)
- Prioritize and implement corrective and preventive actions
- Integrate FMEA into quality, reliability, and maintenance programs
- Utilize FMEA for continuous improvement and risk management

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Why Attend

FMEA is a proactive approach that enables professionals to anticipate failures, mitigate risks, and improve product and process performance. Attending this course will help you adopt a structured problem-prevention mindset and strengthen your decision-making skills using proven reliability tools.

Organizations that apply FMEA effectively experience improved safety, reduced costs, and enhanced customer satisfaction. This training empowers participants to apply FMEA in practical scenarios to achieve measurable quality and reliability improvements.

Target Audience

This course is ideal for:

- Maintenance and Reliability Engineers
- Quality Engineers and Technicians
- Process Engineers and Production Supervisors
- Design Engineers and R&D Professionals
- Safety, Risk, and HSE Personnel
- Project Managers and Technical Leaders
- Anyone involved in continuous improvement or risk assessment

Individual Benefits

- Gain practical knowledge of FMEA methodology and applications
- Learn to identify and address potential failures systematically
- Improve analytical, problem-solving, and risk assessment skills
- Enhance reliability and quality control in your projects
- Boost professional competence in preventive quality tools

Organizational Benefits

- Reduce equipment and process failures proactively
- Strengthen product reliability and safety
- Minimize rework, downtime, and maintenance costs
- Improve customer satisfaction and compliance with standards
- Promote a culture of preventive problem-solving across teams

Instructional Methodology

The course employs an interactive, hands-on approach using:

- Instructor-led presentations with real industry examples
- Group workshops for developing FMEA sheets and analysis
- Case studies demonstrating real failure scenarios
- Exercises to calculate RPN and define corrective actions
- Discussion sessions to share best practices and lessons learned

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Course Outline

Module 1: Introduction to FMEA and Risk Management Principles

Module 2: Types of FMEA – Design, Process, and System Applications

Module 3: FMEA Terminology – Failure Modes, Effects, and Causes

Module 4: Steps to Conduct an FMEA – Team Formation and Data Collection

Module 5: Severity, Occurrence, and Detection Rating Scales

Module 6: Risk Priority Number (RPN) Calculation and Analysis

Module 7: Corrective and Preventive Action Planning

Module 8: FMEA Documentation, Review, and Updates

Module 9: Integrating FMEA with Quality and Reliability Programs

Module 10: Case Studies and Group Exercise on FMEA Application

Certification

Upon successful completion, participants will receive a Certificate in Failure Modes and Effects Analysis (FMEA), recognizing their ability to apply FMEA techniques to improve reliability, safety, and performance in products, processes, and systems.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

In-House / Customized Training Interested in running this course for your team? Please contact us:	TEL: **+601116373203**	EMAIL: **info@mawaevents.net**

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